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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Henry Collins

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11/20/2006

CHOATE, HALL & STEWART LLP
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EXAMINER

NEURAUTER, GEORGE C

ART UNIT

PAPER NUMBER

2143

DATE MAILED: 11/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/762,917	Applicant(s) COLLINS, HENRY	
	Examiner George C. Neurauter, Jr.	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 1-20 are currently presented and have been examined.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5 September 2006 has been entered.

Response to Arguments

Applicant's arguments filed 5 September 2006 have been fully considered but they are not persuasive.

The Applicant argues that the amendments made to the claims distinguish over the cited prior art. The Examiner is not persuaded by these remarks. Namely, the Applicant argues that Houle does not expressly disclose "identifying a command as algorithmic information" since Houle is directed toward encoding only data, as opposed to commands. The Applicant also argues that Houle does not disclose "an extractor separating a command having associated arguments" for the same reasons.

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First, the Examiner points to page 6 of the response wherein the Applicant discloses that "A command has both a command name and associated arguments. See specification, p. 5, line 13..." For the record, there is no such support for this argument at the page and line number as directed by the Applicant, however, such support is located on page 4, lines 25-26 of the specification and it is assumed that the Applicant meant to point to this part of the specification.

The Examiner respectfully traverses the Applicant's arguments for the following reasons.

As has been consistently maintained, the Examiner's interpretation of "algorithmic information" is as shown in the specification on page 2, lines 5-7 as "repetitive or recurring string or data values that occur within a message stream". The Applicant argues that a command contains a command name and associated arguments, which, in view of the specification, the command name is a "string" and the associated arguments and values are "data values".

Houle discloses:

"The present invention is a method and apparatus for compressing a stream of data and for decompressing previously compressed data. The data may represent an image that is either two-dimensional or three-dimensional. It should be recognized,

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however, that the present invention could be used to compress any type of data, including character data." (column 3, line 66-column 4, line 5)

"The method shown in FIG. 2 is used for compressing an incoming data stream, which includes a plurality of incoming data pixels, of which a group of two or more comprise an incoming data stream. (As used herein, "pixel" means any data segment, data structure, or set of bits that define a picture element of an image regardless of color depth or colorspace model used, and includes character data.)" (column 7, lines 19-26)

Therefore, the "command" as claimed contains both string and data values, which Houle, as disclosed as shown above and inconsiderable depth in the background section of Houle, is capable of identifying a command as repetitive or recurring string and data values that occur within a message stream of commands. In view of the specification's definition of algorithmic information and commands and the Examiner's interpretation of the claim, Houle anticipates the claim as recited. The claims do not specifically recite how the command as identified other than as a string and associated data values. Also, as shown previously, Houle discloses that incoming streams

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are separated. Therefore, Houle does disclose these limitations and the claims are not in condition for allowance.

Claim Interpretation

The element "algorithmic information" defined on page 2, lines 5-7 of the specification and recited in claims 1-20 will be given its broadest reasonable interpretation and will be interpreted by the Examiner as repetitive or recurring string or data values that occur within a message stream of a plurality of messages that is consistent with the disclosures of the specification and the interpretation that those skilled in the art would reach. See MPEP § 2111.

The element "parameter information" defined on page 2, lines 7-8 of the specification and recited in claims 1-20 will be given its broadest reasonable interpretation and will be interpreted by the Examiner as non-repetitive or non-recurring data values within a message stream of a plurality of messages and/or residual information necessary to regenerate a data value that is consistent with the disclosures of the specification and the interpretation that those skilled in the art would reach. See MPEP § 2111.

The element "algorithmic sub-stream" defined on page 2, lines 5-6 and 29-30 of the specification and recited in claims 4-20 will be given its broadest reasonable interpretation and

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will be interpreted by the Examiner as a memory element that stores algorithmic information that is consistent with the disclosures of the specification and the interpretation that those skilled in the art would reach. See MPEP § 2111.

The element "parametric sub-stream" defined on page 2, lines 7-8 and 30 of the specification and recited in claims 7-8, 12-17, and 19-20 will be given its broadest reasonable interpretation and will be interpreted by the Examiner as a memory element that stores value or parameter information that is consistent with the disclosures of the specification and the interpretation that those skilled in the art would reach. See MPEP § 2111.

The Applicant has not provided a clear definition for the terms "argument", "argument identifier", "value", "value identifier", "value information", "message", "message identifier", and "algorithmic identifier" recited in claims 1-20 within the specification. Therefore, the Examiner will interpret these elements by their plain meaning as if the term was interpreted by one of ordinary skill in the art. See MPEP § 2111.01.

Claim Rejections - 35 USC § 102

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4-15, and 17-20 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 5 710 719 to Houle.

Regarding claim 1, Houle discloses a method for extracting algorithmic information from a command stream, each command having associated arguments and each argument having an associated value, the method comprising the steps of:

(a) identifying a command as algorithmic information;
(column 7, lines 19-36)

(b) identifying the value of an argument as parameter information the first time the value is encountered and (c) identifying the value of the argument as algorithmic information each subsequent time the value is encountered. (column 4, lines 27-column 5, line 15, specifically column 4, lines 27-29)

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Regarding claim 2, Houle discloses the method of claim 1 wherein step (b) further comprises the steps of:

(b-a) identifying the value of an argument as parameter information the first time the value is encountered and (b-b) storing the identified value in an associated memory element. (column 4, lines 27-column 5, line 15, specifically column 4, lines 27-29 and column 5, lines 6-15; column 19, lines 52-67)

Regarding claim 4, Houle discloses the method of claim 1 further comprising the steps of storing a command identifier in an algorithmic sub-stream when a command is encountered (column 19, lines 52-67) and storing a value identifier in the algorithmic sub-stream when a value of an argument is encountered subsequent to the first time (column 19, lines 52-67 and column 20, lines 24-44).

Regarding claim 5, Houle discloses the method of claim 2 further comprising the steps of storing a command identifier in an algorithmic sub-stream when a command is encountered (column 19, lines 52-67) and storing a value identifier in the algorithmic sub-stream when a value of an argument is encountered subsequent to the first time, the value identifier comprising the location of the value in the associated memory element. (column 23, lines 1-15)

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Regarding claim 6, Houle discloses a method for extracting algorithmic information from a command stream, each command having associated arguments and each argument having an associated value, and transmitting the extracted information from a server to a remote client (column 18, lines 35-48), the method comprising the steps of:

(a) identifying, at the server, a command as algorithmic information; (column 7, lines 19-36)

(b) storing a command identifier in an algorithmic sub-stream; (column 19, lines 52-67)

(c) identifying, at the server, a value of an argument associated with the command as parameter information the first time the value is encountered and (d) identifying, at the server, the value as algorithmic information each subsequent time the value is encountered. (column 4, lines 27-column 5, line 15, specifically column 4, lines 27-29)

Regarding claim 7, Houle discloses the method of claim 6 wherein step (c) comprises:

(c-a) identifying, at the server, a value of an argument associated with the command as parameter information the first time the value is encountered and (c-b) storing the parameter information in a parametric sub-stream. (column 4, lines 27-

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column 5, line 15, specifically column 4, lines 27-29 and column 5, lines 6-15; column 19, lines 52-67)

Regarding claim 8, Houle discloses the method of claim 7 further comprising the step of compressing the parametric substream. (column 15, lines 22-32)

Regarding claim 9, Houle discloses the method of claim 6 wherein step (d) further comprises:

(d-a) identifying, at the server, the value as algorithmic information each subsequent time the value is encountered and (d-b) storing the algorithmic information in the algorithmic sub-stream. (column 19, lines 52-67 and column 20, lines 24-44).

Regarding claim 10, Houle discloses the method of claim 9 further comprising the step of compressing the algorithmic substream. (column 15, lines 22-32)

Regarding claim 11, Houle discloses the method of claim 6 further comprising the step of transmitting the algorithmic substream. (column 18, lines 35-48)

Regarding claim 12, Houle discloses the method of claim 7 further comprising the step of transmitting the parametric substream. (column 18, lines 35-48)

Regarding claim 13, Houle discloses an apparatus for extracting algorithmic information from a command stream, each command having associated arguments and each argument having an

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associated value, and transmitting the extracted information via a network connection (column 18, lines 35-48), the apparatus comprising:

a transmitter in electrical communication with a network connection (column 18, lines 35-48);

a memory element in electrical communication with said transmitter, said memory element providing storage for an algorithmic sub-stream and a parametric sub-stream; an extractor in electrical communication with said memory element, said extractor separating a command having associated arguments into algorithmic information and parameter information and storing the algorithmic information in an algorithmic sub-stream (column 4, line 65-column 5, line 15), wherein said transmitter transmits the algorithmic sub-stream (column 18, lines 35-48).

Regarding claim 14, Houle discloses the apparatus of claim 13 wherein said extractor stores the parameter information in a parametric sub-stream. (column 4, lines 27-column 5, line 15, specifically column 4, lines 27-29 and column 5, lines 6-15; column 19, lines 52-67)

Regarding claim 15, Houle discloses the apparatus of claim 13 wherein said transmitter transmits the parametric sub-stream. (column 18, lines 35-48)

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Regarding claim 17, Houle discloses the apparatus of claim 13 further comprising a compressor in electrical communication with said memory element and said transmitter, said compressor compressing the algorithmic sub-stream. (column 15, lines 22-32)

Regarding claim 18, Houle discloses a system for extracting algorithmic information from a command stream, each command having associated arguments and each argument having an associated value, and transmitting the extracted information from a server to a client via a connection, the system comprising:

a client including a receiver in electrical communication with the connection, the receiver receiving algorithmic information transmitted over the connection (column 18, lines 49-60); and

a server including a transmitter in electrical communication with the connection, the transmitter transmitting an algorithmic sub-stream comprising algorithmic information separated by the extractor over the connection (column 18, lines 35-48); an extractor separating a command having associated arguments into algorithmic information and parameter information; (column 4, line 65-column 5, line 15) and a memory element in electrical communication with said extractor, said memory element storing an algorithmic sub-stream including

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algorithmic information separated by said extractor. (column 4, lines 27-column 5, line 15, specifically column 4, lines 27-29 and column 5, lines 6-15; column 19, lines 52-67)

Regarding claim 19, Houle discloses the system of claim 18 wherein the transmitter transmits a parametric sub-stream comprising the parameter information separated by the extractor, and the client further includes a client memory element in electrical communication with said receiver, said client memory element storing algorithmic and parametric sub-streams transmitted by said server. (column 18, lines 35-60, specifically lines 40-43)

Regarding claim 20, Houle discloses the system of claim 19 wherein said client further includes an extractor in electrical communication with said client memory element, said client extractor producing the command from the algorithmic and parametric sub-streams. (column 18, lines 49-60)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the

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art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 3 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houle in view of "Stack".

Regarding claims 3 and 16, Houle discloses the method and apparatus of claim 2 and 13 respectively.

Houle does not disclose storing the identified argument in a stack memory element or wherein the memory element comprises a stack data structure, however, Houle does disclose that the memory element is a data structure (column 19, lines 53-65).

"Stack" does disclose a stack data structure (see entire reference).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since "Stack" discloses that using a stack

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data structure enables data to be accessed in a last-in-first-out operation. In view of these specific advantages and that the references are directed to using data structures or memory elements in order to store data, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor, which would lead one of ordinary skill to reasonably expect a successful combination of the teachings.

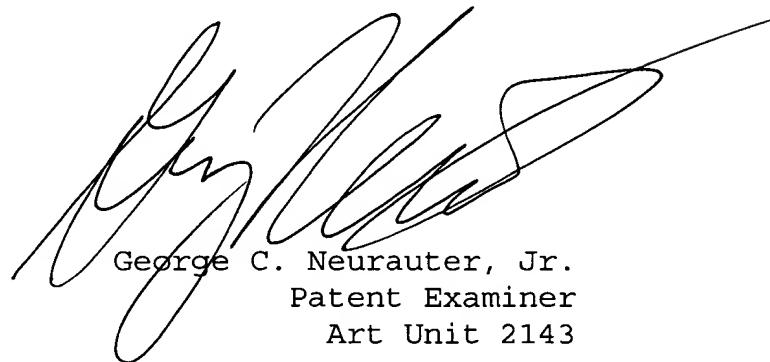
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is 571-272-3918. The examiner can normally be reached on Monday-Friday 10am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



George C. Neurauter, Jr.
Patent Examiner
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